

in this genus may be only a sexual distinction ; but this is disproved by an examination of the British species, where the peculiar form of each is constant in all the individuals that have been examined.

Before quitting the subject of *Kellia rubra* I wish to take the opportunity of mentioning that Dr. Turton was the first to point out the viviparous character of this species, which he announced in his 'British Bivalves,' p. 258, twenty-seven years ago.

I am, dear Sir, yours very truly,

JOSHUA ALDER.

XLII.—*Description of a bag-shaped, glandular apparatus on a Brazilian Bat, the Emballonura canina of Pr. Maximilian.* By J. T. REINHARDT.

DURING a recent sojourn in the Brazils I collected, in the interior of Minas Geraës, numerous specimens of a small species of bat (the *Emballonura canina*, Pr. Maxim.) which is there very common, and which attracted my particular attention from the fact of its having its wings provided with a small bag-like appendage similar to that noticed by Mr. J. E. Gray* and by Professor Krauss† in the species of *Saccopteryx*.

On my return to Europe, I saw, from the annual report of the natural history of the Mammalia for the year 1846 by Professor A. Wagner‡, that this organ had already been discovered on the very same species of bat by the late Dr. Natterer, and that the learned Professor had published drawings of it in his 'Beiträge zur Kenntniss der Säügethiere von America,' published in the 'Abhandlungen der Königl. Bayerischen Academie der Wissenschaften, V^{ter} Band, 1^{ste} Abth. 1847.'

Two figures (*loc. cit.* tab. 4. figs. 6 & 7) being all that is to be found in the above-named work, there being no description in the text, I have thought it right to publish my observations concerning this organ, which are founded on the examination of a large number of specimens, both alive and immediately after death.

On examining in the *Emballonura canina*, that part of the alar membrane which extends to the thumb, along the fore-edge of the upper and lower arm, we find on the back a fissure leading to a small cavity in the interior of the membrane, in which is secreted a reddish, greasy matter, of a strong, somewhat ammoniacal smell. The aperture is at a distance of about 3 lines from the insertion of the alar membrane on the back: the

* Ann. and Mag. of Natural History, vol. xvi. p. 279.

† Erichson's Archiv für Naturgeschichte, Band 1. p. 178. t. 6.

‡ Erichson's Archiv, 1847, B. 2. p. 13.

wing being spread, it has the form of a longitudinal fissure, 2 lines long, which extends immediately to the free outer edge of the membrane, is provided with thick lip-formed edges, and leads into a small cavity stretching itself along the margin of the alar membrane inwards to the body, becoming more and more narrow, and ending at length about $1\frac{2}{3}$ line from the fissure. The wing being extended, the two lips of the aperture glide from each other, so that the cavity opens; but when the wing is at rest or only half-extended, the innermost, that is to say, that lip which is nearest to the body, glides over the outer lip and thus covers it.

Besides this, the small bag is provided with particular muscles, on the contraction of which it must open; for in the alar membrane are seen fine muscular fibres, which run from the edges of the aperture in a parallel direction with the outer edge of the alar membrane, partly towards the body, partly towards the thumb. The interior surface of the bag is without folds or wrinkles.

On comparing the descriptions of the corresponding organ of *Saccopteryx* with the above-described glandular apparatus of the *Emballonura canina*, several material differences may be discovered: first, the bag of the *Saccopteryx* is somewhat differently situated, viz. just at the bending of the joint of the elbow, while in the *Emballonura canina*, as has already been mentioned, it is placed near the edge of the wing; further, the interior surface of the bag in the former is provided with several sharp folds or wrinkles immediately within the opening, which I have not found on the latter; finally, the bag of the *Saccopteryx* is much larger, and has the appearance of a sharply limited protuberance on the lower side of the wing, while in the *Emballonura canina* it is but slightly perceptible.

The males only of the *Emballonura canina* possess the above-described organ; in the females the bag-like cavity is totally wanting, but the lip-formed edges of the fissure exist in a rudimentary condition, being represented by two very fine and sharply limited folds of the skin, of which the largest (which corresponds to the inner lip) scarcely rises the eighth part of a line*. This glandular apparatus is no doubt one of the means by which the sexes are enabled to recognise each other; and it appears to me very probable, that in the *Saccopteryx* likewise, the bag will prove to be a sexual character, a supposition which may find some confirmation in the fact of the specimen described by Dr. Krauss being a male, and the same, if I am not mistaken, being the case with a specimen in the British Museum, which Mr. Gray kindly

* This rudimental state is, no doubt, the reason why it has not been observed by the Prince of Neu-Wied, who founded his description of this bat upon a single female specimen.

allowed me to examine during my short stay in London. This instance of a sexual glandular apparatus in the Cheiroptera does not however stand isolated, since the observations of the late Dr. J. Natterer have made us acquainted with a gland on the males of at least many species of *Dysopes*, provided with an opening, and situated on the throat.

Copenhagen, Sept. 1848.

XLIII.—On some Families and Genera of Corals. By WILLIAM KING, F.G.S. France.

Fam. CYATHOPHYLLIDÆ, Dana.

Gen. *Polycælia**, King.

A (?) simple Cyathophyllidia. *Form* conical. *Walls* solid. *Primary vertical plates* converging to within a short distance of the centre. *Secondary vertical plates* reaching about half way to the centre. *Transverse plates* horizontal, at irregular distances from each other, and extending quite across the cavity. *Chambers or lamellar interspaces* capacious compared with those of other Cyathophyllidias. *Reproduction* within the polypiferous cup.

Type, *Turbinolia Donatiana*, King, 'Catalogue of the Organic Remains of the Permian Rocks of Northumberland and Durham,' p. 6.

This genus differs from most *Cyathophyllidæ* in its structural characters; but it appears to be nearest related to *Cyathophyllum*, taking as its type the (?) tri-areal *C. plicatum* of Goldfuss, which is the first species described under the genus (vide 'Petrefacta,' pl. 15. fig. 12).

Fam. FENESTELLIDÆ, King.

Setting down as the type of *Fenestella* the *F. antiqua* of Lonsdale, it is proposed to place all those palæozoic genera in the present family agreeing with this genus in being reticulated, and having the cellules planted on a basal plate composed of vertical capillary tubuli as first discovered by Mr. Lonsdale. Besides the typical genus above-named, *Fenestellidæ* includes the *Polypora* and *Ptylopora* of Mr. M'Coy, and the two genera next to be described.

Gen. *Synocladia*†, King.

A foliaceous or frondiferous infundibuliform Fenestellidia. *Fronds* consisting of numerous connected stems or ribs. *Stems*

* Etym. πολὺς, many; κοῖλος, a cavity.

† Etym. σύν, with; κλάδος, a branch.